

# UIC Flow Symposium and Bypass Course

November 15-16, 2024

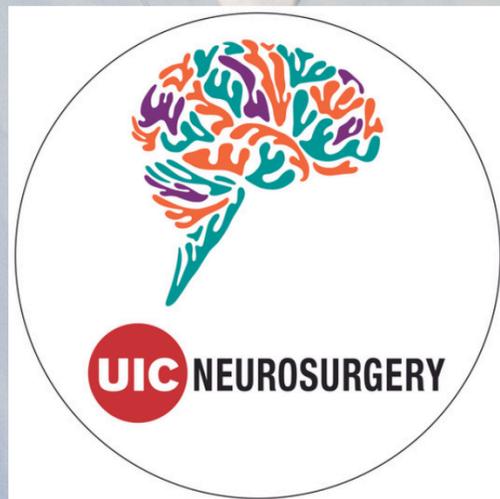
Surgical Innovation Training Laboratory (SITL)

912 S. Wood St.

North Tower

Hosted by the Department of Neurosurgery

University of Illinois at Chicago



# UIC Flow Symposium and Bypass Course Description

This course will highlight the concept/application of “flow” by one of the most experienced bypass surgeons, the inventor of the “Charbel Flow” probe, Dr. Fady Charbel. This one-and-a-half-day course is dedicated to the application of the concept of “flow” in neurovascular pathology with a didactic and hands-on instructional component in techniques of cerebrovascular bypass geared toward neurosurgery residents, fellows and attending surgeons. The didactic portion of the course will emphasize the concept of flow and its application in complex neurovascular pathology.

The nuances of patient selection, “devising a bypass” guided by patient’s physiology of “flow”, intraoperative/perioperative management, and types of bypass failures will be discussed by our experienced faculty. Additionally, Operative videos will demonstrate the concepts. The hands-on component will allow participants to practice microvascular anastomosis in our state-of-the-art Surgical Innovation and Training Lab (SITL) in a graded fashion that allows them to train on rat models on the last day of the course. In addition to having direct feedback from the faculty on their technique, the participants will have a master surgeon demonstrate their technique at the main station. Additionally, the participants will be able to watch live surgery in our Surgical Innovation and Training Lab and be able to engage in a Q/A session with the faculty on operative techniques.



Dr. Fady T. Charbel is the Richard L. and Gertrude W. Fruin Professor and the Head of the Department of Neurosurgery at the University of Illinois at Chicago since 2001. He is an internationally recognized expert in the most complex of Neurosurgical disorders including, cerebral revascularization (Bypass for stroke and Moya Moya disease), carotid and vertebral artery surgery; surgical treatment of complex intracranial aneurysms; resection of AVMs and treatment of complex brain tumors.



**Course Director**  
**Fady T. Charbel, MD, FAANS, FACS**  
Head and Residency Program Director  
Richard L. and Gertrude W. Fruin Professor  
Department of Neurosurgery  
University of Illinois at Chicago



Course Director  
Gursant S. Atwal, MD  
Assistant Professor  
Department of Neurosurgery  
University of Illinois at Chicago

Dr. Gursant Atwal practices in the Department of Neurosurgery at UI Health. Dr. Atwal is fellowship-trained in both open vascular and endovascular neurosurgery, and he specializes in treating disorders involving the blood vessels of the brain and spinal cord, including stroke, brain aneurysms, arteriovenous malformations (AVM), cavernomas, vertebrobasilar disease, and carotid artery disease. As a member of the Neurovascular Team, he has a multidisciplinary approach to help devise the best possible solutions to some of the most complex neurovascular problems and provide patient-centric care for their unique condition. In collaboration with the Department of Otolaryngology–Head & Neck Surgery, Dr. Atwal also focuses on treating skull base tumors using minimally invasive endoscopic techniques. His research interests include cerebrovascular physiology, clinical outcomes in vascular diseases, and methodologies to improve neurosurgical training.

# Course Faculty



**Adnan Siddiqui, MD, PhD, FAANS, FACS, FAHA**

*Guest of Honor*

Vice-Chairman and Professor of Neurosurgery  
Department of Neurosurgery  
Jacobs School of Medicine & Biomedical Sciences  
University at Buffalo  
The State University of New York



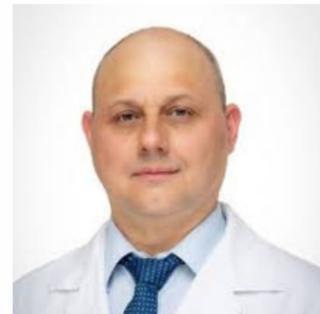
**Prof. Dr. Nima Etminian**

Chair, Department of Neurosurgery  
University Hospital Mannheim  
University of Heidelberg



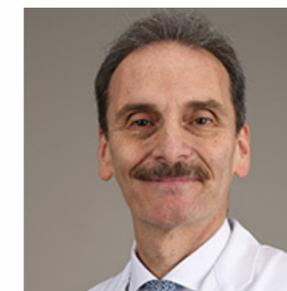
**David Langer, MD**

Chair, Department of Neurosurgery  
Lenox Hill Hospital  
Vice President of Neurosurgery, Western Region  
Northwell Health  
Professor, Neurosurgery and Radiology  
Donald and Barbara Zucker School of Medicine at  
Hofstra/Northwell



**Jiří Fiedler, MD, PhD**

Department of Neurosurgery  
Nemocnice České Budějovice



**Jacques J. Morcos, MD, FRCS, FAANS**

Professor and Chair, John P. and Kathrine G.  
McGovern Distinguished Chair in Neuroscience  
Vivian L. Smith Department of Neurosurgery  
Director, Cerebrovascular and Skull Base  
Neurosurgery  
UTHealth Houston Neurosciences-Texas Medical  
Center



**Matthew Koch, MD**

Clinical Faculty  
Lillian S. Wells Department of  
Neurosurgery  
University of Florida



**Joanna Schaafsma, MD, PhD**

Vascular Neurologist  
Associate Professor  
Stroke Program, Neurovascular Program  
Division of Neurology, Dept of Medicine  
University Health Network  
University of Toronto Canada

# Participants

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**Obianuju Odoh** | Rostov State Medical University | [obianujucynthia1945@gmail.com](mailto:obianujucynthia1945@gmail.com)

# Participants

**Soliman Oushy** | University of Miami | soliman.oushy@gmail.com

**Shivani Rangwala** | Boston Children's Hospital | shivani.rangwala@childrens.harvard.edu

**Krishnana Ravindran** | Mayo Clinic Florida | ravindran.krishnan@mayo.edu

**Laura Reed** | Baylor Scott & White Health | laura.reed@bswealth.org

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**Philip Schmalz** | University of Alabama at Birmingham | pschmalz@uabmc.edu

**John Tsiang** | Loyola University Medical Center | john.tsiang@luhs.org

**Eva Wu** | University of Miami | emw122@miami.edu

## Course Objectives

- Understand flow and its applications.
- Learn anatomical and physiological considerations in bypass surgery.
- Discuss neurovascular pathology with experienced faculty.
- Practice microvascular anastomosis in our state-of-the-art Surgical Innovation and Training Lab.

## Target Audience

Neurosurgery Residents, Neurovascular Fellows and Vascular Neurosurgeons.





# Agenda

**Friday, November 15, 2024**

Subject to change

7:45 AM Shuttle pickup at Hyatt Place

8:00-8:30 AM Arrive at SITL Lab, 912 S. Wood St., for coffee and breakfast

8:30 AM Welcome ceremony

8:40 AM **Flow Assisted Surgical Techniques (F.A.S.T.)** | Dr. Fady T. Charbel

9:10 AM **Microsurgery in Acute Ischaemic Stroke Treatment and Prevention.**

**Single center results and complications** | Dr. Jiri Fiedler

9:30 AM Discussion

10:00 AM Hands on Session 1

12:00 PM **Postop ultrasound in the SAH patient** | Dr. David Langer

12:20 PM **The yield of advanced neuroimaging in the decision-making on revascularization treatment** | Dr. Joanna Schaafsma

12:40 PM **Live Case Demonstration** with Dr. Fady T. Charbel

1:00 PM Lunch

1:30 PM **“Keeping the faith”: Advancing micro surgical skills in the endovascular era** | Dr. Matthew Koch

1:50 PM Hands on Session 2: Chicken Wings

3:50pm **Patient selection and outcomes after EC-IC Bypass surgery for subacute or chronic steno-occlusive vessel disease** | Dr. Nima Etminian

4:10 PM Participant Case Presentations

5:15 PM Shuttle pickup at SITL Lab to Hyatt Place

6:00 PM Shuttle pickup at Hyatt Place to dinner

6:30 PM Dinner & Guest of Honor Lecture

# Agenda

**Saturday, November 16, 2024**

Subject to change

7:45 AM Shuttle pickup at Hyatt Place

8:00 AM Arrive at SITL Lab, 912 S. Wood St.,  
Welcome, Objectives, Coffee & Breakfast

8:30 AM **State of the Art in Cerebrovascular Microsurgery:  
A synergy between Flow quantification and  
bypass creativity** | Dr. Jacques Morcos

8:50 AM **Bypasses for Aneurysm Surgery** | Dr. Gursant Atwal

9:10 AM **Exposure of Rat Femoral Artery  
and Anastomosis Technique** | Dr. Jiri Fiedler

9:30 AM Hands on Session 3: Live Rat Model Anastomosis

11:30 AM Lunch break

12:00 PM Flow Award

12:30 PM Closing remarks | Dr. Fady T. Charbel

1:00 PM Shuttle pickup at SITL Lab to Hyatt Place



## Registration is free at

[chicago.medicine.uic.edu/neurosurgery/events/bypass-course](http://chicago.medicine.uic.edu/neurosurgery/events/bypass-course)

## Hotel & Lodging

Hyatt Place Medical District  
1835 W. Harrison St.  
Chicago, IL 60612

## Course Contacts

*Jessica Beans* [jbeans@uic.edu](mailto:jbeans@uic.edu)

*Shelley Jacobs* [shelleyj@uic.edu](mailto:shelleyj@uic.edu)



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